

WHAT IS CLAIMED IS:

1 1. A method for converting text to concatenated voice by
2 utilizing a digital voice library and a set of playback rules, the digital voice library
3 including a plurality of voice recordings with each recording having a starting sonic
4 feature and an ending sonic feature, the method including receiving text data,
5 converting the text data into a sequence of voice recordings in accordance with the
6 digital voice library and the set of playback rules, the method further comprising:

7 generating voice data based on the sequence of voice recordings by
8 concatenating adjacent recordings in the sequence of voice recordings, wherein
9 concatenating a first recording and a second recording adjacent to the first recording
10 includes manipulating the ending sonic feature of the first recording to determine a
11 first recording switch point, manipulating the starting sonic feature of the second
12 recording to determine a second recording switch point, and synchronizing the first
13 recording switch point and the second recording switch point.

1 2. The method of claim 1 wherein the starting and ending sonic
2 features of the voice recordings are classified into a number of different categories.

1 3. The method of claim 2 wherein one of the categories is a
2 noise.

1 4. The method of claim 2 wherein one of the categories is an
2 impulse.

1 5. The method of claim 2 wherein one of the categories is a tone.

1 6. The method of claim 2 wherein the first recording switch
2 point is selected based on the classification of the ending sonic feature of the first
3 recording.

1 7. The method of claim 6 wherein the second recording switch
2 point is selected based on the classification of the starting sonic feature of the
3 second recording.

1 8. The method of claim 1 wherein the starting and ending sonic
2 features of the voice recordings are classified into a number of different categories
3 including a noise, an impulse, and a tone.

1 9. The method of claim 8 wherein the ending sonic feature of the
2 first recording is an impulse and the starting sonic feature of the second recording
3 is an impulse, and wherein synchronizing the first recording switch point and the
4 second recording switch point further comprises:

5 synchronizing the impulses, and switching to and playing back the
6 impulse and remainder of the second recording.

1 10. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a tone and the starting sonic feature of the second recording is a
3 tone, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 synchronizing the tones, and switching on peaks of the tones.

1 11. The method of claim 10 wherein the recordings overlap, and
2 wherein synchronizing during the overlap includes multiplexing.

1 12. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a noise and the starting sonic feature of the second recording is a
3 noise, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching anywhere within the noise such that not more than fifty
6 percent of duration of either noises is cut.

1 13. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a tone and the starting sonic feature of the second recording is an

3 impulse, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching on a peak of the tone and on an impulse of the impulse.

1 14. The method of claim 13 wherein the tone and the impulse
2 overlap, and wherein synchronizing during the overlap includes multiplexing.

1 15. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a noise and the starting sonic feature of the second recording is an
3 impulse, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching anywhere within the noise such that not more than fifty
6 percent of the noise is cut, and switching on an impulse of the impulse.

1 16. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a noise and the starting sonic feature of the second recording is an
3 tone, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching anywhere within the noise such that not more than fifty
6 percent of the noise is cut, and switching on a peak of the tone.

1 17. The method of claim 8 wherein the ending sonic feature of the
2 first recording is an impulse and the starting sonic feature of the second recording
3 is a tone, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching at a peak of the tone and an end of the impulse.

1 18. The method of claim 17 wherein the impulse and the tone
2 overlap, and wherein synchronizing during the overlap includes multiplexing.

1 19. The method of claim 8 wherein the ending sonic feature of the
2 first recording is an impulse and the starting sonic feature of the second recording

3 is a noise, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching anywhere within the noise such that not more than fifty
6 percent of duration of the noise is cut, and switching an end of the impulse.

1 20. The method of claim 8 wherein the ending sonic feature of the
2 first recording is a tone and the starting sonic feature of the second recording is a
3 noise, and wherein synchronizing the first recording switch point and the second
4 recording switch point further comprises:

5 switching anywhere within the noise such that not more than fifty
6 percent of duration of the noise is cut, and switching at a peak of the tone.

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